Revisiting wealth inequality

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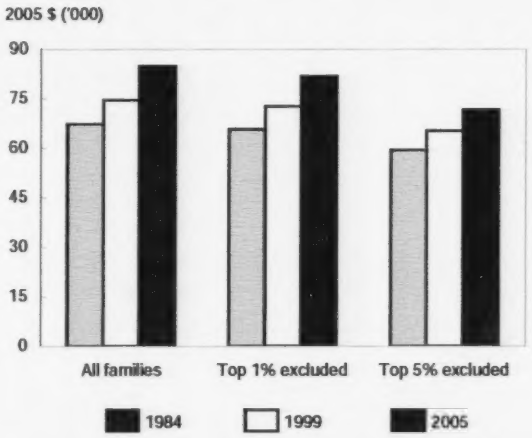
Wealth provides access to economic resources. To mitigate the impact of unexpected expenses or income losses, those with a reserve of wealth can liquidate some of their financial or real assets. More positively, sufficient net worth allows the possibility to reduce work hours, make riskier investments, or try self-employment. On the other hand, lack of wealth makes these options less likely.

Between 1984 and 1999, wealth inequality rose in Canada (Morissette, Zhang and Drolet 2002, 2006). In 1984, families and unattached individuals (hereafter referred to simply as families) in the top 10% of the wealth distribution held 52% of household wealth, excluding the value of employer-sponsored pension plans. Fifteen years later, they held 56%, and in 2005, 58%.

Using the Assets and Debts Survey for 1984 and the Survey of Financial Security for 1999 and 2005, this article examines wealth distribution over the period from 1984 to 2005. Most of the analysis uses three different samples: all families, all families except those in the top 1%, and all families except those in the top 5%. Since the 1984 survey contained no information about employer-sponsored pensions, wealth, unless otherwise noted, excludes the value of work-related pension plans (see *Data sources and definitions*).

Chart A The median wealth (in constant dollars) of families rose by more than 20% between 1984 and 2005



Sources: Statistics Canada, Assets and Debts Survey, 1984; Survey of Financial Security, 1999 and 2005

Average and median wealth

Between 1984 and 1999, real (adjusted for inflation) median wealth grew by roughly 10% (Chart A). It rose a further 10% to 14% between 1999 and 2005, bringing the increase to between 21% and 26% over the entire 1984-to-2005 period. In contrast, real average wealth increased between 51% and 70%, reflecting large increases in wealth at the top of the distribution.[2]

The growth was far from uniform across age groups. Average wealth rose faster among families with a major income recipient 35 and over (Chart B). For instance, it increased by at least 79% in families with a major income recipient 65 and over, but fell by up to 12% when the major income recipient was 25 to 34.

Part of the increase in average wealth resulted from the aging of the population, with more families having had time to accumulate financial and real assets. If the age structure had remained unchanged throughout the 1984-to-2005 period, average wealth would have risen less. Applying the 1984 age structure to the 2005

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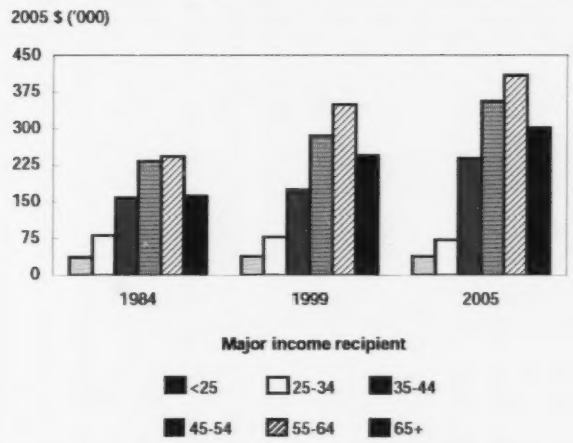
Chart B Average wealth rose more for families with a major income recipient 35 or older



Sources: Statistics Canada, Assets and Debts Survey, 1984; Survey of Financial Security, 1999 and 2005

wealth distribution indicates that about one-quarter of the growth from 1984 to 2005 was caused by population aging. The remainder reflected growth within age groups.

Wealth inequality 1984 to 2005

As numerous studies have shown (for example, Davies 1979 and 1993), wealth is highly concentrated. In 1984, families in the top 10% of the wealth distribution held 52% of aggregate household wealth whereas the bottom 50% held only 5% (Table 1).[3] Concentration increased from 1984 to 1999 and again from 1999 to 2005, as the top 10% of families came to own 56% of Canadians' net worth in 1999, and 58% in 2005.[4] Over the 1984-to-2005 period, only families in the top 10% increased their share of total wealth.[5]

Meanwhile, median net worth stagnated or fell in the bottom 40% of the distribution but rose substantially in the top 40%. For instance, median net worth fell by roughly $7,500 (in 2005 dollars) in the lowest 10% over the 1984-to-2005 period, while increasing by between $237,000 and $659,000 (depending on the sample considered) in the highest 10%. Hence, wealth inequality rose as not all segments of the Canadian population enjoyed wealth increases.[6]

Data sources and definitions

The 1984 **Assets and Debts Survey** (ADS) was a supplement to the May 1984 Survey of Consumer Finances. The 1999 **Survey of Financial Security** (SFS) was conducted from May to July 1999, and the 2005 SFS was conducted from May to July 2005. For all three surveys, the sample was based on the Labour Force Survey frame and represented all families in Canada except residents of the territories, households on Indian reserves, full-time members of the Armed Forces, and residents of institutions.[1]

Some differences between the surveys are worth noting. The ADS collected information on assets (except housing) and debts for each member of the family aged 15 and over and then aggregated to the family level. In contrast, the SFS collected this information directly at the family level. The SFS also used a supplementary 'high-income' sample to improve the quality of wealth estimates.

To make the concept of wealth comparable, the following must be excluded from the SFS: contents of the home, collectibles and valuables, annuities, and registered retirement income funds (RRIFs). Wealth is the difference between the value of a family's total assets and its total debts. Unless otherwise noted, it excludes the value of work-related pension plans as well as entitlements to future Canada/Quebec Pension Plan or Old Age Security benefits. It also excludes any measure of the discounted flow of future earnings by family members.

One particularly difficult issue is the measurement of the upper tail of the wealth distribution. Using a variety of data sources, Davies (1993) estimates that the share of total wealth held by the top 1% of families in 1984 may increase from 17% (using the ADS) to between 22% and 27% after adjustments. Similarly, the share held by the top 5% of families in 1984 may increase from 38% to between 41% and 46%.

A further complication arises because comparisons are made for two points in time and the degree of truncation may have changed. More precisely, assume, for simplicity, that the true wealth distribution remained unchanged between 1984 and 1999. Extending the argument of Davies (1993, 160) to the analysis of changes in the wealth distribution, if no family with wealth over $10 million consented to an interview in 1984, and none with wealth over $50 million consented in 1999, the 1984 ADS and 1999 SFS would show an (incorrect) increase in wealth inequality simply because of better interviewing techniques in the later survey. Most of the analysis in this paper therefore uses three different samples: all families, all families except those in the top 1% of the wealth distribution, and all families except those in the top 5%. The terms wealth and net worth are used interchangeably.

In fact, although both median and average wealth grew markedly, the proportion of families with zero or negative net worth showed no improvement. In 2005, 14% of families had more debts than assets, up from 11% in 1984 (Table 2). Also, more families had no financial wealth in 2005 (24%) than in 1984 (18%).[7]

Table 1 Median wealth and share of total wealth

	Median wealth			Share			2005 share with:	
	1984	1999	2005	1984	1999	2005	1984 age structure	1984 family structure
		2005 $				%		
All families								
Bottom 10%	-2,100	-6,570	-9,600	-0.5	-0.6	-0.6	-0.8	-0.6
Second	780	120	10	0.1	0.0	0.0	0.0	0.0
Third	7,770	6,820	6,000	0.5	0.4	0.2	0.1	0.3
Fourth	24,630	26,150	25,500	1.7	1.3	1.1	0.7	1.3
Fifth	52,260	57,120	63,250	3.5	2.8	2.5	2.1	2.7
Sixth	83,130	93,850	109,050	5.6	4.7	4.4	3.9	4.4
Seventh	120,690	148,610	173,590	8.2	7.4	6.9	6.6	6.9
Eighth	170,210	221,770	263,000	11.5	11.0	10.5	10.4	10.2
Ninth	256,740	344,890	413,750	17.5	17.4	16.8	17.0	16.2
Top 10%	534,980	723,590	1,194,000	51.8	55.7	58.2	60.0	58.6
Top 1% excluded								
Bottom 10%	-2,120	-6,800	-9,850	-0.6	-0.8	-0.8	-1.0	-0.8
Second	710	120	10	0.1	0.0	0.0	0.0	0.0
Third	7,430	6,390	5,800	0.6	0.4	0.3	0.2	0.4
Fourth	23,830	25,340	24,870	1.9	1.6	1.3	0.9	1.6
Fifth	50,850	55,220	61,500	4.1	3.4	3.1	2.5	3.4
Sixth	81,630	91,360	105,660	6.6	5.7	5.4	4.8	5.7
Seventh	117,890	144,470	168,000	9.5	9.0	8.6	8.1	8.7
Eighth	165,080	214,310	250,970	13.4	13.3	12.9	12.7	12.9
Ninth	246,300	326,650	392,720	20.1	20.7	20.5	20.6	20.2
Top 10%	470,000	644,390	939,340	44.2	46.6	48.6	51.3	47.8
Top 5% excluded								
Bottom 10%	-2,290	-7,170	-10,100	-0.7	-1.0	-1.1	-1.4	-1.1
Second	530	60	0	0.1	0.0	0.0	-0.1	0.0
Third	6,420	4,030	4,400	0.7	0.5	0.3	0.2	0.4
Fourth	20,580	21,960	21,000	2.2	1.8	1.5	1.0	1.9
Fifth	45,380	49,070	55,000	4.7	4.0	3.8	3.0	4.1
Sixth	75,210	83,180	95,360	7.7	6.7	6.5	5.7	6.9
Seventh	107,170	129,720	151,000	11.1	10.4	10.3	9.7	10.4
Eighth	149,800	190,780	224,970	15.5	15.4	15.3	15.2	15.3
Ninth	211,930	279,320	333,050	22.0	22.8	23.3	23.7	22.7
Top 10%	341,090	472,910	578,180	36.8	39.5	40.2	43.1	39.4

Note: Excluding the value of registered pension plans.
Sources: Statistics Canada, Assets and Debts Survey, 1984; Survey of Financial Security, 1999 and 2005

While wealth inequality rose between 1984 and 1999 (Morissette, Zhang and Drolet 2002, 2006), summary measures of inequality confirm that it kept rising between 1999 and 2005.[8] The Gini coefficient (which equals 0.0 if all families have the same amount of wealth and 1.0 if one family holds all household wealth) rose from 0.691 in 1984 to 0.727 in 1999 and then to 0.746 in 2005.[9]

Wealth inequality did not rise uniformly. It increased much more among non-elderly couples with children and lone-parent families than among unattached individuals and non-elderly couples with no children (Table 3).

The evolution of the Gini coefficient since 1970 provides a long-term perspective on wealth inequality. The Assets and Debts Survey looked at wealth distribution in 1970, 1977 and 1984. The 1984 survey was reweighted to make it consistent with the 1999 and 2005 Survey of Financial Security. Thus, comparable Gini coefficients are available over the following two sub-periods: 1970 to 1984 and 1984 to 2005.[10]

Wealth inequality, as measured by the Gini coefficient, displayed a U-shape between 1970 and 2005 (Chart C). It fell sharply between 1970 and 1977, remained fairly constant between 1977 and 1984, but rose substantially in subsequent years. As a result, it was no

Table 2 Families with no wealth or no financial wealth

	1984	1999	2005
		%	
All families			
Net worth ≤0	10.8	12.3	14.1
Financial wealth ≤0	17.7	19.7	24.0
Top 1% excluded			
Net worth ≤0	10.9	13.4	14.2
Financial wealth ≤0	17.8	19.9	24.1
Top 5% excluded			
Net worth ≤0	11.3	14.0	14.8
Financial wealth ≤0	18.2	20.7	25.1

Sources: Statistics Canada, Assets and Debts Survey, 1984; Survey of Financial Security, 1999 and 2005

lower in 2005 than in 1970. Hence, Canada's wealth dispersion has been trending upwards since the mid-1980s. Similar patterns are observed when plotting the share of wealth held by the top 10% of families.

While wealth inequality first fell and then rose over the 1970-to-2005 period, median wealth trended upwards (Chart D). It rose sharply between 1970 and 1977, stagnated between 1977 and 1984, and then rose again after 1984. It amounted to roughly $85,000 in 2005, more than twice the 1970 level (roughly $40,000).

While population aging tended to increase average wealth between 1984 and 2005, it also affected the wealth distribution. In the absence of population aging, the share of total wealth held by the top 10% of families would have risen from 52% in 1984 to 60% in 2005 (Table 1). Since the actual figure in 2005 was 58%, it appears that population aging reduced the concentration of wealth at the top of the distribution.[11]

Some evidence suggests that changes in family structure had the opposite effect. If the top 1% or the top 5% of families are excluded, the share of aggregate wealth held by the top 10% would have risen by one percentage point less between 1984 and 2005 if the proportion of unattached individuals and lone-parent families had remained unchanged. However, this no longer holds when all families are considered.

Wealth by population subgroup

Although both median and average wealth rose between 1984 and 2005, not all population subgroups enjoyed increases. Young families (major income recipient aged 25 to 34) saw their median wealth fall by 50% or more (Table 4).[12] The situation was fairly similar in 1984 and 2005 for families with a major income recipient aged 35 to 54 without a university degree. However, this age group saw a solid 39% rise in median wealth when the major income recipient was a university graduate.

Other groups also benefited. Elderly unattached individuals saw their median wealth double, from roughly $48,000 in 1984 to $100,000 in 2005. Couples with children under 18 and those with no children also saw theirs increase—34% and 55% respectively. Growth among couples with children was far from uniform, however. For young couples, median wealth fell sharply between 1984 and 1999, rebounding between

Table 3 Gini coefficient by family type

	1984	1999	2005	1984-2005
				% change
Unattached individual				
Elderly	0.647	0.655	0.659	1.9
Non-elderly	0.853	0.868	0.888	4.1
Non-elderly couple				
No children or other relatives	0.666	0.695	0.689	3.5
Children under 18[1]	0.647	0.707	0.738	14.1
Children 18 and over or other relatives	0.540	0.614	0.619	14.6
Elderly couple (no children or other relatives[2])	0.540	0.541	0.576	6.7
Lone-parent family	0.807	0.897	0.886	9.8
Other	0.667	0.650	0.646	-3.1

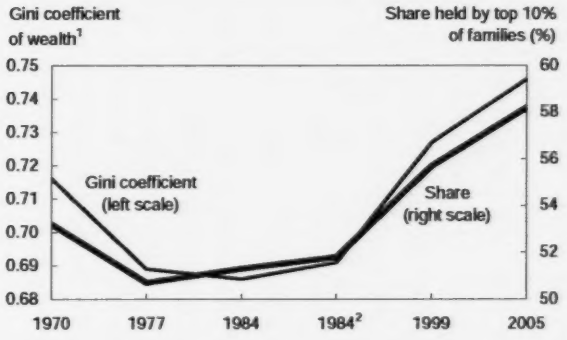
1 At least one child of the major income recipient is under 18. Other relatives may also be in the family.
2 No children under 18.
Sources: Statistics Canada, Assets and Debts Survey, 1984; Survey of Financial Security, 1999 and 2005

Table 4 Median and average wealth by characteristics of major income recipient

	Median wealth			Average wealth		
	1984	1999	2005	1984	1999	2005
			2005 $			
Overall	**67,300**	**74,400**	**84,800**	**148,500**	**202,900**	**251,700**
Education level						
Not a university graduate	60,800	62,300	68,500	137,500	167,400	214,700
University graduate	114,800	135,900	144,900	218,100	333,500	364,800
Age						
Under 25	3,500	200	F	37,200	37,900	F
25 to 34	27,000	17,400	13,400	80,500	77,500	71,000
35 to 44	84,700	69,100	84,200	158,500	175,000	238,300
45 to 54	142,800	132,700	146,000	233,200	285,400	355,900
55 to 64	148,700	177,500	203,500	242,300	348,900	409,000
65 and over	93,100	145,200	157,000	162,100	244,100	301,700
Age/education						
25 to 34						
Not a university graduate	24,400	12,800	10,500	72,100	57,400	57,800
University graduate	47,500	35,600	F	117,600	129,100	F
35 to 54						
Not a university graduate	92,700	75,800	87,500	176,500	179,800	245,100
University graduate	150,100	166,700	208,500	252,000	359,800	432,100
Immigration status						
Canadian-born	62,100	69,700	77,000	141,500	194,300	238,800
Immigrant	95,700	107,900	122,700	177,700	238,600	306,200
In Canada 20 years or more	138,200	197,300	222,100	224,400	329,000	385,300
In Canada 10 to 19 years	78,400	51,300	F	131,700	162,200	F
In Canada less than 10 years	20,300	15,100	F	103,800	87,200	F
Family type						
Unattached individual						
Elderly	47,700	80,600	100,000	90,600	159,100	199,100
Non-elderly	6,600	6,900	5,000	54,400	73,600	74,700
Couple, no children	83,600	117,100	129,900	174,200	281,300	300,700
Couple, children under 18	89,700	89,600	120,200	172,000	225,700	350,600
Couple, children 18 and over	179,500	192,900	259,500	289,700	360,000	476,500
Elderly couple, no children	139,500	204,500	220,000	228,700	323,100	405,900
Lone-parent family	2,200	4,200	F	45,400	73,500	F
Other	85,500	129,800	130,500	167,100	242,100	241,900

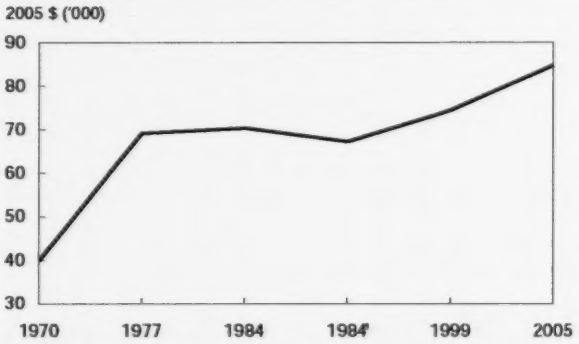
Sources: Statistics Canada, Assets and Debts Survey, 1984; Survey of Financial Security, 1999 and 2005

Chart C The distribution of wealth has again become more unequal



1 Excluding the value of registered pension plans (RPPs).
2 1984 data re-weighted for consistency with the Survey of Financial Security.
Sources: Statistics Canada, Assets and Debts Survey, 1984; Survey of Financial Security, 1999 and 2005

Chart D After stagnating between 1977 and 1984, median wealth increased between 1984 and 2005



1 1984 data re-weighted for consistency with the Survey of Financial Security.
Sources: Statistics Canada, Assets and Debts Survey, 1984; Survey of Financial Security, 1999 and 2005

1999 and 2005, although not to its 1984 level (Table 5).[13] In contrast, for those aged 45 to 54, median wealth rose steadily, climbing 45% between 1984 and 2005.

Lone-parent families and non-elderly unattached individuals had low median and average wealth, reflecting at least partially the absence of a second earner. For these two groups, median wealth was no higher than $7,000 in 1999. This reflects the lack of assets these families have at their disposal to lessen the impact of unexpected expenses or earnings disruptions.

Average wealth rose more than median wealth in virtually all population subgroups (Table 4), suggesting that the increase in wealth inequality was widespread. For instance, the average wealth of immigrants arriving 20 or more years ago rose by more than $150,000 while their median wealth increased by roughly $85,000.[14]

Wealth components

Average wealth did not improve over the 1984-to-2005 period for families in the bottom fifth of the distribution. In contrast, it rose about $19,000 in the middle group and more than $400,000 in the top fifth (Table 6).[15]

Table 5 Wealth of non-elderly couples with children under 18

	1984	1999	2005
Age of major income recipient		2005 $	
25 to 54			
Average	172,400	224,600	350,700
Median	90,600	90,400	120,300
Net worth ≤0 (%)	6.2	8.5	8.0
25 to 34			
Average	109,300	88,000	100,700
Median	50,700	35,500	45,600
Net worth ≤0 (%)	9.5	16.0	15.4
35 to 44			
Average	188,200	228,000	348,500
Median	105,000	103,100	126,800
Net worth ≤0 (%)	4.9	6.8	5.9
45 to 54			
Average	262,400	376,500	597,700
Median	166,300	186,100	241,900
Net worth ≤0 (%)	2.8	3.4	4.8

Sources: Statistics Canada, Assets and Debts Survey, 1984; Survey of Financial Security, 1999 and 2005

Selected characteristics of persons in low-income families	Low income			Low income and no financial wealth[1]			Low income and financial wealth < income gap[2]		
	1983	1998	2004	1984	1999	2005	1984	1999	2005
					%				
All families	13.8	13.6	12.5	5.0	5.3	4.6	9.8	9.5	9.1
Age of major income recipient (MIR)									
Less than 25	28.8	47.5	38.2	13.3	22.7	17.6	24.6	38.9	32.8
25 to 34	14.6	18.0	17.7	6.3	9.4	7.2	11.4	14.6	13.6
35 to 44	10.5	12.9	12.3	3.8	4.8	4.2	8.0	8.8	8.8
45 to 54	8.9	8.3	8.1	3.1	2.6	3.5	6.5	5.4	5.8
55 to 64	12.2	12.1	9.4	3.1	3.2	1.6	6.5	6.6	5.7
65 and over	20.3	8.2	6.0	4.0	1.4	1.4	9.1	3.6	2.9
Education level of MIR									
Not a university graduate	15.1	15.1	14.3	5.4	6.0	5.8	10.7	10.7	10.9
University graduate	6.1	8.5	7.4	2.6	3.0	1.3	4.1	5.6	4.0
Age/education of MIR									
25 to 34									
Not a university graduate	16.0	19.9	22.1	6.6	10.8	9.9	12.5	16.5	17.8
University graduate	7.7	11.9	8.5	4.6	4.9	1.6	6.1	8.6	5.0
35 to 54									
Not a university graduate	11.0	12.3	11.8	4.0	4.4	4.9	8.4	8.2	9.0
University graduate	4.3	7.2	7.0	1.4	2.3	1.4	2.4	4.8	3.6
Family type									
Unattached individual									
Elderly	47.9	21.3	16.5	8.3	3.3	2.4	19.5	9.4	7.2
Non elderly	34.1	37.6	35.1	14.7	16.8	15.0	26.9	30.0	30.5
Couple, no children	6.6	6.8	5.8	1.7	1.9	1.7	3.6	3.7	3.5
Couple, children under 18	9.8	10.3	9.3	3.8	3.5	1.8	7.1	6.7	5.2
Couple, children 18 and over	3.0	3.2	2.9	0.6	1.0	0.9	1.3	1.2	1.4
Elderly couple, no children	5.2	1.5	0.5	0.5	0.4	0.3	1.6	0.9	0.3
Lone-parent	49.9	44.5	46.5	20.7	24.0	27.5	42.7	37.5	41.7
Female	53.6	49.3	50.0	21.9	26.7	29.6	45.7	42.1	44.6
Other	14.9	9.8	6.9	5.8	3.5	3.1	12.1	5.7	5.3
Immigration status of MIR									
Canadian-born	13.6	12.2	10.7	5.2	5.1	4.3	9.9	8.6	8.2
Immigrant	14.9	17.9	18.8	4.2	6.1	5.8	9.6	12.3	12.1
Less than 10 years ago	23.1	35.6	34.5	7.3	12.8	9.7	15.7	25.6	21.2
10 years ago or more	12.9	11.3	12.6	3.4	3.7	4.2	8.2	7.4	8.6

1 Zero or negative financial wealth. Financial wealth is defined as net worth minus net equity in housing and net business equity.
2 The income gap is the difference between a family's low-income cutoff and its after-tax income.
Sources: Statistics Canada, Assets and Debts Survey, 1984; Survey of Financial Security, 1999 and 2005

Data on low income are often used to examine the extent to which families live in straitened circumstances. However, while after-tax income is a good indicator of a family's ability to sustain a given standard of living, wealth is also important—financial assets can be converted into cash and used for consumption.

Families with both low income and little or no financial wealth are more vulnerable than others since they have fewer resources to absorb negative shocks (Morissette 2002). Modest wealth is defined as insufficient to cover a family's low-income gap—that is, they would remain in low income even if they liquidated all their financial assets. These families would face short-term financial difficulties if unexpected and unfavourable events occurred.

The proportion of persons living in families with low income and no financial wealth remained virtually unchanged at 5% between 1984 and 2005. Similarly, those in families with low income and modest financial wealth changed little—10% in 1984 and 9% in 2005.

Regardless of the measure used, female lone-parent families are by far the most financially vulnerable. In all years, more than 40% of persons in these families were in low income and would have stayed in that state even after liquidating their financial assets. Non-elderly unattached individuals are also vulnerable; 31% were in low income and had little financial wealth in 2005.

In all years, financial vulnerability was substantially lower for older age groups, no doubt reflecting an increase in earnings and wealth with age. Between 1984 and 2005, the financial vulnerability of families with a major income recipient under 25 rose. It also rose for those with a major income recipient aged 25 to 34 with no university degree. However, it fell among those with a major income recipient aged 65 and over. The improvement among elderly families reflects growing income from private and public pensions.

Table 6 Average wealth components

	1984	1999	2005	1984-2005
Bottom fifth		2005 $		Change
Assets				
Non-RRSP deposits	750	630	640	-110
Non-RRSP investments	130	140	160	30
RRSPs/LIRAs	90	730	810	720
Other financial	120	150	10	-110
Principal residence	1,850	4,650	6,380	4,520
Other real estate	340	800	740	400
Vehicles	1,970	2,010	2,550	580
Business equity	580	-370	770	190
Debts				
Mortgage on principal residence	1,460	4,220	5,700	4,240
Other debt	7,270	10,440	14,110	6,850
Net worth	-2,890	-5,920	-7,760	-4,860
Middle fifth				
Assets				
Non-RRSP deposits	9,940	7,690	8,780	-1,160
Non-RRSP investments	2,680	2,550	2,510	-170
RRSPs/LIRAs	2,510	13,020	12,070	9,560
Other financial	1,210	1,440	20	-1,190
Principal residence	67,040	92,630	115,220	48,180
Other real estate	8,330	7,490	8,660	330
Vehicles	9,160	10,960	12,210	3,040
Business equity	2,700	1,970	2,380	-330
Debts				
Mortgage on principal residence	26,870	49,190	57,380	30,500
Other debt	8,680	12,460	17,420	8,740
Net worth	68,020	76,100	87,050	19,030
Top fifth				
Assets				
Non-RRSP deposits	50,800	48,370	59,090	8,290
Non-RRSP investments	34,610	98,160	96,790	62,180
RRSPs/LIRAs	22,980	115,030	126,980	104,000
Other financial	17,170	19,230	1,840	-15,340
Principal residence	175,450	249,430	353,920	178,460
Other real estate	60,740	83,520	153,160	92,420
Vehicles	18,390	24,480	26,930	8,540
Business equity	171,720	157,800	207,020	35,300
Debts				
Mortgage on principal residence	15,760	28,570	39,550	23,790
Other debt	21,470	26,430	41,600	20,140
Net worth	514,650	741,010	944,590	429,940

Sources: Statistics Canada, Assets and Debts Survey, 1984; Survey of Financial Security, 1999 and 2005

From an accounting view, two factors were mainly responsible for the widening gap between families in the bottom and top fifths of the wealth distribution: home equity and holdings in RRSPs and locked-in retirement accounts (LIRAs). The net value of the principal residence stagnated among families in the bottom fifth, but rose about $155,000 among those in the top fifth.[16] Similarly, RRSP and LIRA holdings changed very little in the former group while increasing roughly $100,000 in the latter. Roughly 60% of the $435,000 increase in dispersion between the two groups over the 1984-to-2005 period is explained by the increase in home equity and RRSPs or LIRAs among the top fifth of the distribution.[17] Adding growth in the value of stocks, bonds and mutual funds (roughly $62,000 for the top group) accounts for 73% of the increase. If growth in the value of real estate other than the principal residence ($92,000) is also added, almost the entire increase (94%) is accounted for.[18]

Several other points are worth noting. After almost tripling between 1984 and 1999, the stock, bond and mutual fund holdings of families in the top fifth stagnated between 1999 and 2005, likely a reflection of the downturn in the stock market after 2001. However, at the same time, these families substantially increased the value of real estate assets other than their principal residence. In addition, the strong growth in RRSPs among this group is consistent with the sharp increase in RRSP contributions made by high-income families over the 1986-to-2003 period (Morissette and Ostrovsky 2006).

The role of inheritances

Part of the wealth gap may be due to inheritances, and questions asked in the 2005 Survey of Financial Security shed light on this issue. According to the survey, some 10% of families in the bottom fifth of the wealth distribution had received inheritances, compared with 36% in the top fifth. On average, the market value of inheritances for recipients in the former

Table 7 Wealth gap between the bottom 20% and the top 20%, 2005

	Average wealth gap	Fraction of gap explained
	$	%
No controls	958,400	...
A. Controlling for inheritances		
1 - Received in the past 10 years	929,700	3.0
2 - Received in the past	916,900	4.3
3 - Value, annual growth = 1%	913,700	4.7
4 - Value, annual growth = 3%	916,000	4.4
5 - Value, annual growth = 5%	926,600	3.3
B. Controlling for after-tax income	839,800	12.4
C. Multiple controls[1]	896,100	6.5
C + A1	867,700	9.5
C + A2	857,700	10.5
C + A3	855,200	10.8
C + A4	857,200	10.6
C + A5	866,200	9.6
C + A1 + B	772,900	19.4
C + A2 + B	762,600	20.4
C + A3 + B	760,300	20.7
C + A4 + B	762,100	20.5
C + A5 + B	771,000	19.6

Note: Based on 5,190 observations; families for whom the value of inheritances is unknown are excluded.

1 Including provincial indicators, a quadratic term for the age of the major income recipient, four indicators for the education level of the major income recipient, six indicators of family type and an indicator of work limitation. The dependent variable is the net worth of families.

Source: Statistics Canada, Survey of Financial Security

group was one-tenth ($13,200) that of the latter group ($136,600). Together, these two findings suggest that inheritances may explain part of the wealth gap.

Five measures of inheritance were considered (Table 7). Two refer to the market value of inheritances received anytime in the past or in the past 10 years. The other three measures assume that financial or real assets received in the past have not been consumed by households and have appreciated since the year of receipt at annual rates of 1%, 3% or 5% (after inflation).[19]

Whichever measure is considered, controlling for the value of inheritances received reduces the average wealth gap between the bottom and top fifths by between 3% and 5%. In contrast, after-tax income has a much bigger impact, explaining 12% of the gap.

Since conclusions about the influence of specific explanatory variables depend on the order in which these variables are entered, alternative specifications are considered. Rather than simply controlling for inheritances alone, they can be added to a specification that already includes a large set of controls: family type, province of residence, age and education of the major income recipient, and an indicator of work limitation. When this is done, the fraction of the wealth gap explained increases from about 7% to over 10%. Once again, this suggests that inheritances, however measured, account for a very small portion (around 3% to 4%) of the wealth gap between the bottom and top fifths.

Furthermore, adding after-tax income to inheritances and the large set of controls defined above increases the portion of the wealth gap than can be explained from around 10% to about 20%. This confirms that family income after tax does a better job than inheritances in explaining the wealth gap.

Broader concepts of wealth, 1999 to 2005

Because the Assets and Debts Survey contained no information about employer-sponsored retirement plans, the wealth concept used so far has not taken into account the value of work-related pension plans. Including pensions in a broader concept of net worth suggests that median wealth grew between 19% and 23% over the 1999-to-2005 period.[20] In contrast, average wealth, broadly defined, increased by between 27% and 30%, depending on the samples considered.

As with the narrower wealth concept, almost no evidence is found that wealth inequality based on a concept that includes the value of registered pension plans fell between 1999 and 2005. In general, the share of total wealth held by the top tenth of the distribution rose slightly, if anything, between 1999 and 2005 (Table 8).[21] Furthermore, in all three samples, neither the Gini coefficient nor the coefficient of variation decreased over that period. Only the exponential measure showed a very small decrease (1% to 2%) when families in the top 5% of the wealth distribution were excluded.[22]

Summary

Median wealth more than doubled between 1970 and 2005, having grown by about 20% to 25% since 1984. Thus, many Canadian families today are richer than their counterparts 20 or 35 years ago.

Table 8 Shares of total wealth

	All families		Top 1% excluded		Top 5% excluded	
	1999	2005	1999	2005	1999	2005
			%			
Using RPP termination value						
Bottom 10%	-0.3	-0.3	-0.3	-0.3	-0.4	-0.4
Second	0.2	0.1	0.2	0.2	0.2	0.2
Third	0.7	0.6	0.8	0.7	0.9	0.8
Fourth	1.9	1.7	2.2	1.9	2.4	2.1
Fifth	3.4	3.2	3.8	3.7	4.3	4.1
Sixth	5.5	5.2	6.2	6.0	6.9	6.7
Seventh	8.1	8.1	9.2	9.3	10.2	10.2
Eighth	12.0	12.2	13.7	13.9	14.8	15.3
Ninth	18.9	18.3	21.3	20.9	22.3	22.2
Top 10%	49.6	50.9	42.9	43.9	38.5	38.9
Using RPP going concern value						
Bottom 10%	-0.3	-0.3	-0.3	-0.3	-0.4	-0.4
Second	0.2	0.1	0.2	0.2	0.2	0.2
Third	0.8	0.6	0.9	0.7	0.9	0.8
Fourth	1.9	1.7	2.2	1.9	2.4	2.1
Fifth	3.5	3.2	4.0	3.7	4.4	4.1
Sixth	5.6	5.3	6.4	6.1	7.1	6.8
Seventh	8.3	8.1	9.4	9.3	10.3	10.3
Eighth	12.2	12.2	13.8	14.0	14.8	15.3
Ninth	19.1	18.4	21.4	20.8	22.3	22.2
Top 10%	48.7	50.6	42.1	43.6	40.0	38.6

Note: Including the value of registered pension plans (RPPs).
Source: Statistics Canada, Survey of Financial Security, 1999 and 2005

Nevertheless, major changes in the wealth structure have taken place over the last two decades. While the median wealth of young families fell by half between 1984 and 2005, it rose by almost 40% for those in which the major income recipient was a university graduate aged 35 to 54. Median wealth of elderly unattached individuals doubled but remained negligible among lone-parent families.

During this period, the distribution of wealth, excluding the value of employer-sponsored pension plans, has become more unequal—and would have become even more unequal in the absence of population aging. The gap between families in the bottom and top 20% of the wealth distribution rose mainly because the top 20% experienced a substantial increase in home equity and also allocated more of their financial assets to RRSP and LIRA holdings.

As measured by the Gini coefficient, wealth inequality fell sharply between 1970 and 1977, remained fairly constant between 1977 and 1984, but rose substantially in subsequent years. As a result, it was no lower in 2005 than in 1970. In virtually all population subgroups, average wealth rose more than median wealth, suggesting that the increase in wealth inequality was widespread. The growing wealth dispersion since the mid-1980s suggests that Canadian families are becoming increasingly unequal in their capacity to mitigate negative income shocks in bad times or to initiate forward-looking strategies in good times.

Perspectives

Notes

1 Includes penal institutions, mental hospitals, sanatoriums, orphanages and seniors' residences.

2 When all families are considered, real average wealth rose 70% during this period. When the top 1% (5%) of families are excluded, it increased by 59% (51%). For median wealth, the corresponding estimates are 26%, 25% and 21%.

3 To analyze trends in wealth inequality, the Gini coefficient and two other measures were used: the coefficient of variation and the exponential measure. The Gini coefficient is sensitive to changes in the middle of the wealth distribution, while the coefficient of variation is sensitive to changes at the top, and the exponential measure to changes at the bottom.

4 While the increase in the share of wealth held by the top 10% over the 1999-to-2005 period is not statistically significant at the 5% level (two-tailed test), the increase over the 1984-to-2005 period is significant at the 1% level. The corresponding increases observed over the 1984-to-2005 period for the other two samples are also significant at the 1% level.

5 When the top 1% or 5% of families are excluded, only the top 20% of the remainder saw their share of total wealth increase during that period.

6 When all families are considered, median wealth of the wealthiest 20% of families amounted to about $551,000 in 2005, compared with $465,000 in 1999 and $336,000 in 1984. In contrast, median wealth in the bottom 20% of the distribution has stagnated over the past two decades; it was essentially zero in 1984 and negative (about -$1,000) in both 1999 and 2005.

7 Financial wealth is defined as net worth minus net equity in housing and own business.

8 Whether all families are considered or the top 1% are excluded, the increase in the Gini coefficient between 1999 and 2005 is statistically significant at the 10% level. When the top 1% of families are excluded, the increase in the Gini coefficient is significant at the 1% level. In all three samples, the increase in the Gini coefficient between 1984 and 2005 is statistically significant at the 1% level.

9 As is well known, rigorous statements about whether wealth inequality rose from 1999 to 2005 require verifying that the 2005 Lorenz curve lies below the 1999 curve at all percentiles of the wealth distribution. For all three samples, this condition is satisfied when the bottom 0.5% of families are excluded. With this exclusion, wealth inequality unambiguously rose from 1999 to 2005 (and from 1984 to 2005). The growth in wealth inequality over the 1999-to-2005 period followed an increase in inequality in after-tax family income that took place during the 1990s (Frenette, Green and Picot 2006), suggesting that growing income dispersion contributed to the increase in wealth concentration.

10 The Gini coefficients, the estimates of median wealth, and the estimates of the share of wealth held by the top 10% of families for the 1970-to-1984 period (Charts C and D) are drawn from Oja (1987, 28).

11 Population aging leads to a decline in the relative importance of young families, who have lower-than-average wealth, and an increase in the relative importance of older families, who tend to have higher-than-average wealth. Re-weighting the 2005 data using six age groups (under 25, 25 to 34, 35 to 44, 45 to 54, 55 to 64, and 65 and over) produces a Gini coefficient of 0.767. The actual Gini coefficient in 2005 was 0.746, suggesting that population aging tended to reduce wealth inequality between 1984 and 2005. Whether one uses the Gini coefficient, the exponential measure, or the coefficient of variation, this conclusion generally holds in all three samples. The only exception is observed with the coefficient of variation when all families are considered. Here the numbers suggest that population aging accounted for a very small portion (4%) of the increase over the 1984-to-2005 period.

12 The drop occurred mainly because cumulative earnings of young men—the sum they receive over several years—fell substantially between the 1970s and the 1990s. Over the 1994-to-2004 period, their cumulative earnings averaged roughly $267,000, much less than the $330,000 for the 1973-to-1983 period. In contrast, cumulative earnings of young women rose more than $10,000, from about $166,000 to $177,000. The cumulative earnings of young men and women taken together fell from $248,000 to $222,000. Student loan debt played only a minor role. One reason is that student debt is carried mainly by postsecondary graduates, who represent only a fraction of young individuals. In fact, the average owed on student loans rose by a modest $3,300 between 1984 and 2005.

13 In 2005, 15.4% of these couples had zero (or negative) net worth, compared with only 9.5% in 1984.

14 For a detailed analysis of the wealth of immigrant families in 1999, see Zhang (2003).

15 Average wealth rose by roughly $176,000 among families between the 75th and 95th percentiles.

16 In both 1999 and 2005, the vast majority of families in the top fifth (at least 95%) owned a house. Among homeowners, the median value of the principal residence rose a solid $75,000 between 1999 and 2005, reflecting a sharp increase in housing prices. In contrast, home equity changed very little among families in the bottom 20%. This is not surprising since very few of these families—at most 6%—owned a house during the 1999-to-2005 period.

17 When families in the top 5% of the wealth distribution are excluded, the average wealth gap between the bottom 20% and those between the 75th and 95th percentiles rises by about $180,000. Home equity, and RRSPs and LIRAs grow by roughly $111,000 and $63,000 respectively among the latter group. Thus, growth differences in these two assets explain about 97% of the widening gap.

18 Ideally, one would like to consider the increase in net wealth on real estate other than the principal residence. This requires data on mortgages held on secondary residences, which are not available in the 1984 Assets and Debts Survey.

19 The 92 families reporting inheritances but not their market value were excluded. The average wealth gap in this sub-sample amounts to $958,400, very close to the $952,350 shown in Table 6.

20 Defined-benefit pension plans are valued in two ways, one that generates a termination value and the other a going-concern value. Both methods assume that, for current plan members, plan membership is considered only up to the time of the survey.

21 The only exception is found when using the going-concern value of defined-benefit pension plans and excluding the top 5% of families.

22 In all three samples, median wealth of the top 20% rose at least 26%; for the bottom 20%, it fell 13% or more (using the termination value of defined-benefit pensions).

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